

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. ~~203~~ *17*  
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UNITED STATES PATENT AND TRADEMARK OFFICE

PAT. & T.M. OFFICE  
BOARD OF PATENT APPEALS  
AND INTERFERENCES

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

TRACY M. HAGEN

Junior Party,<sup>1</sup>

MICHAEL R. HATCH and CHAK M. LEUNG

Senior Party<sup>2</sup>

Patent Interference No. 103,228

Before CALVERT, URYNOWICZ and PATE, Administrative Patent Judges.

URYNOWICZ, Administrative Patent Judges.

<sup>1</sup> Application No. 07/975,352 filed November 12, 1992. Assignor to Seagate Technology, Inc., Scotts Valley, CA.

<sup>2</sup> Application No. 08/042,906 filed April 5, 1993, now U.S. Patent No. 5,282,103 issued January 25, 1994. Assignors to Read-Rite Corp., Milpitas, CA. Reissue Application No. 08/521,786 filed August 31, 1995. Accorded benefit of Application No. 07/958,516, filed October 7, 1992. Assignors to Read-Rite Corp., Milpitas, CA.

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N/E

FINAL JUDGMENT

The invention at issue in this interference relates to a head suspension assembly. The particular subject matter in issue is illustrated by count 1, the sole count, as follows:

Count 1

A head suspension assembly including an air bearing slider and at least one transducer disposed on the slider for transducing data that is recorded and read out from a surface of a rotating magnetic disc, comprising:

a single integral planar piece of a specified thickness comprising,

a beam section formed with a narrowed end;

a gimbal section formed with two spaced gimbal beams defining a cutout portion therebetween, the gimbal beams extending from the narrowed end of the beam section, and a lateral section spaced from the beam section connecting the gimbal beams;

a load point tab extending from the narrowed end of the beam section, the load point tab being disposed between the gimbal beams of the gimbal section, the load point tab having a free end within the gimbal section, the load point tab being formed with a load supporting protrusion;

the air bearing slider being bonded to the lateral section and in contact with the load supporting protrusion;

whereby load transfer is effectively separated from the gimbaling action of the slider so that pitch and roll stiffness is effectively reduced.

The claims of the parties which correspond to the count are as follows:

Hagen : Claims 1-4, 6-22, 29, 30 and 40

Hatch et al. (patent) : Claims 1-22

Hatch et al. (reissue): Claims 1-22

This proceeding was declared on April 24, 1995 between the involved patent of Hatch and the involved application of Hagen. Hagen was accorded senior party status.

Interference No. 103,228

In the Decision on Preliminary Motions dated September 19, 1996 (Paper No. 75), Motion No. 3 of Hagen for judgment on the ground that Hatch et al. (Hatch) patent claims 1-22 are unpatentable to Hatch for failure to comply with the second paragraph of 35 U.S.C. § 112 Paper No. 19) was granted. Motions of Hatch to add its involved reissue application to this proceeding with claims 1-22 (Paper No. 61) and for benefit of the October 7, 1992 filing date of U.S. application Serial No. 07/958,516 (Paper No. 62) were granted. The decision to add the reissue indicated that Hatch claims 3-5, 13/3-13/5, 14/13/3-14/13/5, 17/13/3-17/13/5 and 19/3-19/5 are unpatentable to Hatch under 35 U.S.C. § 112, second paragraph.<sup>3</sup> Hagen Motion Nos. 1 and 4-8 (Paper Nos. 18, 20-22, 28 and 55, respectively) were deferred to final hearing.

As a result of the Decision on Preliminary Motions, the order of the parties was changed to Hagen v. Hatch.

Both parties took testimony under 37 CFR § 1.651, filed briefs, and appeared for oral hearing.

Each of the parties lists sixteen issues for decision. Issues 2 and 5-16 of Hatch correspond to one or more issues listed by Hagen.

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<sup>3</sup> In the Decision on Preliminary Motions of September 19, 1996 (Paper No. 75), the Administrative Patent Judge (APJ) erroneously indicated that claims 15/13/3-15/13/5, 16/15/13/3-16/15/13/5 and 20/15/13/3-20/15/13/5 are unpatentable to Hatch, presumably for their dependency on one of unpatentable claims 3-5. This error is apparently based on the fact that reissue claim 15 is not faithfully reproduced at page 5 of Hatch's renewed preliminary motion filed April 22, 1996 (Paper No. 61). However, none of claims 15, 16 or 20 in the reissue application depends from one of unpatentable claims 3-5. Claim 15 of the reissue application depends directly from claim 1 and claims 16 and 20 depend from claim 15.

Interference No. 103,228

Hagen Issue No. 9

In its Motion No. 7, Hagen requests leave to file a corrected preliminary statement under 37 CFR § 1.635/1.628 (Paper No. 28). The motion is unopposed and is granted for the reasons given in the motion.

Hagen Issue No. 16

Hagen requests that the parties be permitted to file reply briefs. Hatch stands opposed. The request is denied.

The party Hagen filed an opening brief (Paper No. 181) and a closing brief (Paper No. 188). The opening brief gave Hagen the opportunity to argue issues as to which it had the burden of proof. In its brief (Paper No. 186), filed after the junior party's opening brief but before its closing brief, Hatch had the opportunity to argue issues on which it had the burden of proof and to oppose arguments raised by Hagen on which Hagen had the burden of proof. Hagen's closing brief gave it the opportunity to oppose arguments in Hatch's brief on which Hatch had the burden of proof. Having been given these opportunities, the filing of further briefs by the parties is unnecessary. The APJ shall determine the briefs needed and set the time and order for filing briefs. 37 CFR § 1.656(a).

Hagen Issue No. 2

Hagen contends that the APJ abused his discretion in his order of March 20, 1996 (Paper No. 60) by not dismissing the party Hatch's second 37 CFR § 1.633(h) motion to add its involved reissue application to this proceeding (Paper No. 48) and by authorizing Hatch to file a third

Interference No. 103,228

motion to add the reissue application to the proceeding (Paper No. 60). Hagen asserts the second motion should have been dismissed because there was no showing by Hatch establishing good cause why the motion was not timely filed. The junior party states that the APJ's reason for considering the second motion and for authorizing Hatch to file the corrected third motion (Paper No. 61) was that it was desirable that this proceeding be allowed to continue to a final determination of priority. According to Hagen, this reason does not satisfy the interest of justice requirement under 37 CFR § 1.645(b) because the rules are designed to provide an orderly and efficient procedure, and they may not be ignored.

We disagree with Hagen, and find that the APJ did not abuse his discretion in considering Hatch's second motion and in authorizing Hatch to file a perfected motion to add its reissue application to this proceeding. We agree with the APJ that it is clearly in the interest of justice to award judgment on the basis of priority of invention under 35 U.S.C. § 102(g) than to award judgment to a party simply because of a technical or procedural deficiency in an opponent's case. As such, the APJ was justified in considering Hatch's second motion.<sup>4</sup>

The APJ found that the second motion was not in full compliance with 37 CFR § 1.637(h), and in accord with 37 CFR § 1.610(e), he authorized Hatch to submit a perfected motion. Although Hatch stumbled somewhat in its attempt to file a motion in compliance with

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<sup>4</sup> The APJ indicated in Paper No. 60 that Hatch had not established in its second motion that any of its reissue claims interfered with Hagen, and the party Hatch was given 30 days to file a renewed motion.

Interference No. 103,228

the rules, the resulting delay was minimal when compared with the entire history of this proceeding and the existence of approximately two hundred entries in the file over a five-year period.

Hagen Issue No. 1

In Hagen issue No. 1, it is argued that the APJ abused his discretion in his Decision on Preliminary Motions (Paper No. 75) by dismissing arguments in the party Hagen's opposition (Paper No. 66) to the party Hatch's 37 CFR § 1.633(h) motion to add its reissue application to the interference (Paper No. 61) that claims 1-22 of Hatch's reissue application were unpatentable under 35 U.S.C. §§ 115, 120, 132 and 251. In its statement of the reasons why the relief requested should be granted, Hagen urges that a party is entitled to raise any matter which it believes would prevent its opponent from obtaining a claim designated as corresponding to a count.

We find no merit to Hagen's position that the APJ abused his discretion by dismissing Hagen's argument. Hagen drew attention to no provision in 35 U.S.C. §§ 115, 120, 132 or 251 which the Hatch reissue application does not comply with. Rather, Hagen's opposition attempted to establish that the declaration in Hatch U.S. continuation-in-part application Serial No. 08/042,906 filed on April 5, 1993, which matured into Hatch's involved U.S. Patent No. 5,282,103, did not comply with Rules 62(e), 62(j), 63(d) and 175. In this regard, any technical deficiency in meeting the formal requirements of such rules must be viewed in light of the

Interference No. 103,228

Office's acceptance of the Hatch applications as in compliance with the rules. It has been held that "[r]egularity of routine administrative procedures is presumed, and departure therefrom, should such have occurred, is not grounds for collateral attack." Hyatt v. Boone, 146 F.3d 1348, 47 USPQ2d 1128, 1133 (Fed. Cir. 1998).

Hagen Issue No. 8

In Hagen Issue No. 8, it is argued that all of the claims in Hatch's involved patent are invalid and all of the claims in Hatch's reissue application are unpatentable under 35 U.S.C. § § 115, 120 and 132. The arguments set forth by Hagen are that the declaration in Hatch U.S. continuation-in-part application Serial No. 08/042,906 filed on April 5, 1993 which matured into Hatch's involved U.S. Patent No. 5,282,103, did not comply with Rules 62(e), 62(j) and 63(d). Whereas we found above no merit to Hagen's argument under Hagen Issue No. 1 that the APJ abused his discretion by dismissing arguments in party Hagen's opposition to the party Hatch's 37 CFR § 1.633(h) motion that claims 1-22 of Hatch's reissue application were unpatentable under 35 U.S.C. § § 115, 120, 132 and 251, and that the declaration in Hatch U.S. continuation-in-part application Serial No. 08/042,906 did not meet the requirements of Rules 62(e), 62(j), 63(d) and 175, Hagen's arguments on the merits of this issue are dismissed.

Hagen Issue No. 3

Hagen contends that the APJ abused his discretion in granting Hatch's motion (Paper No. 62) for benefit with respect to its reissue application of the October 7, 1992 filing date of parent U.S. application Serial No. 07/958,516. It is argued that the parent application is not a

Interference No. 103,228

constructive reduction to practice of the invention because it was abandoned before the filing date of the application in issue.

In its opposition (Paper No. 33) to Hatch's motion for benefit, Hagen's sole argument was that the declaration in Hatch U.S. application Serial No. 08/042,906 filed on April 5, 1993 which matured into its involved U.S. Patent No. 5,282,103, did not comply with Rules 62(e), 62(j) and 63(d).

The basis of Hagen's argument in its opposition was essentially the same as presented with respect to Hagen Issue Nos. 1 and 8, and, accordingly, this argument of Hagen is dismissed for the same reason that the arguments in Hagen Issue Nos. 1 and 8 were dismissed.<sup>5</sup>

Hagen Issue No. 4

Hagen contends that claims of the Hatch reissue application are unpatentable as failing to comply with 35 U.S.C. § 112, second paragraph.

A decision on whether a claim is invalid under 35 U.S.C. § 112, second paragraph, requires a determination of whether those skilled in the art would understand what is claimed when the claim is read in light of the specification. Orthokinetics, Inc. v. Safety Travel Chairs, Inc., 806 F.2d 1565, 1576, 1 USPQ2d 1081, 1088 (Fed. Cir. 1986).

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<sup>5</sup> In its opposition, Hagen did not allege non-compliance with 35 U.S.C. §§ 115, 120, 132 or 251.



Hagen's contentions are found to have no merit for the following reasons.

Claim 1

The recitation "said transverse section connecting said two flexure beams" is not indefinite because those skilled in the art would understand that what is claimed is structure such as shown in Figure 1 of Hatch wherein transverse section 38 connects the two flexure beams 32.

The recitation "said load point tongue having a free end within said shaped opening" is not indefinite because those skilled in the art would understand that what is claimed is structure such as illustrated in Figure 1 of Hatch wherein tongue 14 has its free or right-most end within the shaped opening or cutout 16.

Claim 2

The recitation "a top non-air bearing surface" is not indefinite because those skilled in the art would understand that what is claimed is structure such as an upper surface of slider 28 as viewed in Hatch Figure 2.

Claims 3-5, 13/3-13/5, 14/13/3-14/13/5, 17/13/3-17/13/5 and 19/3-19/5

The APJ ruled in the Decision on Preliminary Motions that these claims of Hatch's reissue application are unpatentable under the second paragraph of 35 U.S.C. § 112. Hatch does not seek review of this decision at final hearing. Accordingly, judgment in this proceeding will indicate that Hatch is not entitled to a patent with the above claims.

Interference No. 103,228

Claim 6

The recitation "said air bearing slider is about 0.0110 inch high, 0.0400 inch long and 0.0200-0.0260 inch wide" is not indefinite because those skilled in the art would understand that the word "about" applies to each dimension of the slider 22. The fact that the third dimension concerns a range simply does not confuse what values are within the scope of claim 6. The language defines that the width of the slider is about a particular range of values.

Claim 12

The recitation "said flexure beams are substantially parallel to said longitudinal direction" is not indefinite because those skilled in the art would understand that what is claimed is structure such as flexure beams 32 in Figure 1 of Hatch which are substantially parallel and extend in the longitudinal direction of the structure.

The recitation "such that said shaped opening is substantially U-shaped" is not indefinite because those skilled in the art would understand that what is claimed is structure such as the U-shaped opening or cutout 16 in Figure 1, which U-shaped opening is defined by tongue 14, flexure beams 32 and transverse section 38.

Hagen Issue No. 7

Hagen urges that its proposed count 3 should be substituted for count 1. It is Hagen's position that count 1 is indefinite.

Interference No. 103,228

The motion is denied because 35 U.S.C. § 112, second paragraph, relates only to the indefiniteness of actual claims. Case v. CPC International, Inc., 730 F.2d 745, 221 USPQ 196 (Fed. Cir.), cert. denied, 469 U.S. 872, 224 USPQ 736 (1984).

However, even assuming the question of indefiniteness applies to counts, count 1 is not indefinite.

Hagen's position that it is impossible to tell whether the air bearing slider and the at least one transducer recited in the preamble are or are not part of the claimed combination is unpersuasive. Both elements are part of the claimed combination because they are structural limitations, and also because recitation in the preamble of a slider with at least one transducer disposed thereon provides antecedent basis for the use of the term slider in the body of the claim. Rowe v. Dror, 112 F.3d 473, 42 USPQ2d 1550 (Fed. Cir. 1997).

The premise of Hagen's second argument is that "cutout portion" refers to a process of removing material. Hagen's argument is that it is impossible to tell whether a head suspension assembly could only be relied on as an actual reduction to practice if the corresponding structure had been produced by a process including a cutting step. No merit is found in this argument. The phrase "cutout portion" does not define a process step of removing material in the count. One of ordinary skill in the art would have no difficulty understanding that "cutout portion" refers to a break or void in an otherwise continuing surface. In Hatch that void is identified as 16, and in Hagen it is void 44.

Interference No. 103,228

Hagen argues the term "lateral" in the third paragraph of the body of count 1 is indefinite because there is no antecedent recitation of a transverse direction or any coordinate system giving meaning to the term "lateral." We disagree. The third paragraph recites "a lateral section spaced from the beam section." In this term, "lateral" merely defines the section as a side section or a section which is positioned to the side. The lateral section in Hatch is ear 38, and in Hagen it is the upper-most portion of the arm illustrated in Figure 2 having the hole 40. A count is written in claim form and a decision on whether a claim is indefinite requires a determination of whether those skilled in the art would understand what is claimed when the claim is read in light of the specification. Orthokinetics, Inc. v. Safety Travel Chairs, Inc., 806 F.2d at 1576, 1 USPQ2d at 1088. The subject matter defined in the count is clear when read in light of the specifications of Hatch and/or Hagen.

The word "connecting" in the third paragraph of the body of count 1 is ambiguous according to Hagen because "count 1 does not indicate whether the lateral section connects the legs to the load beam section or to each other." This is unpersuasive. The count recites "and a lateral section spaced from the beam section connecting the gimbal beams." This clearly means that the lateral section is spaced from the beam section (not "load beam section" as indicated by Hagen) and that the lateral section connects the gimbal beams to each other as illustrated in both Hatch and Hagen.

Lastly, Hagen argues "the whereby clause at the end of the body of count 1 does not define what the 'load transfer' refers to--i.e., it does not define what load is transferred to what." It is the Board's position that one of ordinary skill in the art would have understood that the

rotating magnetic disk provides an aerodynamic lift force or load to the slider. This is evident from Hatch's discussion of the prior art beginning at column 1, line 49, of its involved patent.

Hagen Issue No. 6

Hagen argues that its proposed count 2 should be added to this proceeding. It is urged that the prior art in combination with count 1 would not have suggested making the gimbal beams thinner than the planar piece comprising the beam section, the lateral section, and the load point tab, all of which have a first thickness. The argument is made that the reduced thickness of the gimbal beams relative to the rest of the planar piece reduces the roll and pitch stiffness of the gimbal beams, thereby enabling the slider to be more responsive to the variations in the surface of the rotating disk.

A preliminary motion seeking to add a count shall show that the proposed count defines a separate patentable invention from every other count proposed to remain in the interference. 37 CFR § 1.637(c)(1)(v). The invention of proposed count 2 is a separate patentable invention with respect to the invention of count 1 only if the invention of proposed count 2 is new (35 U.S.C. § 102) and non-obvious (35 U.S.C. § 103) in view of the invention of count 1, assuming the invention of count 1 is prior art with respect to the invention of count 2. 37 CFR § 1.601(n).

We are of the opinion that the party Hagen has not carried its burden of establishing that the invention of proposed count 2 is separately patentable from the invention of count 1. Count 1 defines a single integral planar piece of a specified thickness comprising a beam section, a lateral

section, a load point tab and two spaced gimbal beams. The only difference between count 1 and count 2 argued by Hagen is that the thickness of the elements of the planar piece are the same in count 1 whereas the thickness of the gimbal beams is less than the other elements of the planar piece in proposed count 2. Mere reference to a claimed feature which is not disclosed in the prior art does not per se establish separate patentability within the meaning of 37 CFR § 1.601(n). L'Esperance v. Nishimoto, 18 USPQ2d 1534, 1538 (Bd. Pat. App. & Int. 1991). Hagen relies on no evidence in support of its position.

In contrast, it was known in the prior art that a slider would roll and pitch under control of the gimbal beams when the suspension assembly was in use. See the DESCRIPTION OF THE PRIOR ART in the involved Hatch patent. Still further, it is evident from the whereby clause of count 1 that the purpose of the gimbal beams is to allow a gimbaling action of the slider so as to be responsive to the variations in the surface of the rotating disk. It would have been obvious to one of ordinary skill in the art that a slider insufficiently responsive to variations in the surface of a rotating disk could be made more responsive by making the gimbal beams to which it is attached thinner to reduce stiffness and improve responsiveness.<sup>6</sup> The fact that there is not an express teaching in count 1 of the thinner gimbal beam configuration does not preclude a conclusion of obviousness because the artisan must be presumed to know more than what is expressly taught in the references. In re Jacoby, 309 F.2d 513, 516, 135 USPQ 317, 319 (CCPA

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<sup>6</sup> In like manner, one of ordinary skill in the art having count 1 before him would have found it obvious to increase the thickness of the gimbal beams relative to the rest of the elements of the planar piece to increase the roll and pitch stiffness of the gimbal beams to eliminate over-responsiveness of the slider to the variations in the surface of the rotating disk.

Interference No. 103,228

1962). A conclusion of obviousness may be made from common knowledge and common sense of the person of ordinary skill in the art without any specific hint or suggestion in a particular reference. In re Bozek, 416 F.2d 1385, 1390, 163 USPQ 545, 549 (CCPA 1969).

Hagen Issue No. 5

Hagen contends that the interfering subject matter should be redefined because the subject matter defined by its claims 1-4, 6-22, 29 and 30 does not correspond to the count. It is asserted that those claims do not define the same patentable invention as Hagen's claim 40 and Hatch's claims 1-22.

It is urged that claims 1 and 18, the only independent claims, are not obvious over Hagen corresponding claim 40 and Hatch corresponding claims 1-22 in view of the prior art (37 CFR § § 1.601(n)) because none of the assumed prior art comprising Hagen claim 40 and Hatch claims 1-22, or the prior art under 35 U.S.C § 102, teaches (1) a mounting surface, compliant beams, a rigid beam and a gimbal section all formed from a single contiguous piece of resilient material having a first material thickness, and a load point tab being of a second material thickness less than the first material thickness and, (2) a load supporting protrusion on a load point tab, the protrusion located closely adjacent the transverse portion of an H-shaped opening. Hatch does not contend that Hagen claim 40, any of Hatch claims 1-22, or the prior art teaches any of the above features (1) and (2), but argues that they would have been obvious to one of ordinary skill in the art.

We are of the opinion that Hagen has not carried its burden of establishing that its claims 1 and 18 define a separate patentable invention over Hagen claim 40 and Hatch claims 1-22. 37 CFR § § 1.637(a) and (c)(4)(ii).

With respect to item (2), above, at page 72, lines 4-6, of its brief, the junior party admits to the effect that a flexure section having an H-shaped opening and a flexure section having a U-shaped opening define the same patentable invention. Furthermore, claims 1 and 18 are broad in that they only require that the load supporting protrusion is located closely adjacent the transverse portion of the H-shaped opening. Whereas prior art flexures or heads are relatively small to begin with, it is considered that virtually any protrusion on the tab of a flexure with an H-shaped opening would be closely adjacent the transverse portion of the H-shaped opening.<sup>7</sup> Even if the relationship between the protrusion and the transverse portion of the H-shaped opening had been more narrowly defined, Hagen has merely made reference to a feature not disclosed in the prior art and this does not per se establish separate patentability. L'Esperance v. Nishimoto, 18 USPQ2d at 1538.

Concerning item (1), Hagen argues that conventional engineering practices would have taught away from making the load tab thinner than the rest of the single integral planar piece.

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<sup>7</sup> U.S. Patent No. 4,167,765 to Watrous cited by Hagen in its INFORMATION DISCLOSURE STATEMENT (IDS) filed with its involved application illustrates in Figure 3 a slider 38 centered on flexure 26, and at column 3, lines 29-32, the protuberance 42 is disclosed as located at the center of gravity of the slider. Such being the case, a centrally located load bearing protrusion on a load point tab would necessarily be located closely adjacent the transverse portion of the H-shaped opening because the transverse portion of the H-shaped opening is near the center of the gimbal portion of the flexure due to the shape of the letter "H." U.S. Patent 3,931,641, also cited by Hagen in its IDS, discloses a centrally positioned protuberance 40.



This is because the load point tab is supposed to be structurally rigid in order to resist force applied upon it by the slider.

It is considered that Hagen has not carried its burden of persuasion. The junior party has not drawn attention to any evidence that the load point tab is supposed to be structurally rigid. Hagen's position that the load point tab is supposed to be rigid is nothing more than attorney argument. Such is not evidence in this case and may not be accepted in lieu thereof. Meitzner v. Mindick, 549 F.2d 775, 193 USPQ 17 (CCPA), cert. denied, 434 U.S. 854, 195 USPQ 465 (1977). Furthermore, even assuming that Hagen had established that the prior art recognized that the load point tab is supposed to be rigid, Hagen has not established its position that one of ordinary skill in the art would have found it undesirable to make the load point tab thinner than the rest of the flexure assembly so as to maintain rigidity of the tab. There is no evidence establishing that the practitioner would have considered that the load point tab could not be rigid while, at the same time, thinner than the rest of the flexure.

With respect to claims 2, 3 and 17, Hagen merely points out that the assumed prior art does not teach continuous and discontinuous surfaces. Mere reference to a claimed feature which is not disclosed in the prior art does not per se establish separate patentability within the meaning of 37 CFR § 1.601(n). L'Esperance v. Nishimoto, 18 USPQ2d at 1538. Furthermore, an embodiment of a structure comprising two abutting pieces of planar material of different thicknesses would have one continuous surface at the place where they abut and an opposing second discontinuous surface at the location where they abut.

Hagen dependent claims 4 and 6 are not separately argued.

Hagen's basis to undesignate claims 7-9 and 30 is to the effect that the prior art does not teach a load supporting protrusion that is non-round. This position is unsupported by evidence and is unpersuasive.<sup>8</sup>

Claim 10 depends from claim 1 and is not separately argued.

Hagen's basis to undesignate claims 11-15 is to the effect that the prior art does not teach the features recited therein. Again, Hagen's position with respect to each of these claims is unpersuasive because Hagen merely asserts that certain features are not disclosed in the prior art and the arguments are not supported by evidence.<sup>9</sup>

The subject matter of claim 16 is taught by the assumed prior art of Hatch's patent claim 11 wherein the narrow legs (legs 32) are about 0.0010 inch thick and the integral planar piece is about 0.0012 to 0.0015 inch high.

Separate patentability of the subject matter added by dependent claim 19 is not argued by Hagen.

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<sup>8</sup> To the contrary, U.S. Patent 4,167,765 to Watrous at column 4, lines 51-53, discloses that "the load protrusion 42 may be any shape other than the spherical shape shown."

<sup>9</sup> With respect to claim 11, U.S. Patent No. 4,399,476 to King, cited in Hagen's IDS discloses in Figure 3a protrusion 12a offset from the longitudinal centerline of the flexure. As to claim 12 and Figure 3a, the length of the portion of leg 17d above line 16 provides a visual indication of the direction in which the load supporting protrusion is offset from a centerline. Concerning claim 13, leg 17d is integral to the flexure. As to claim 14, a hole above head pad 12 is on the same side of the centerline as the load protrusion 12a, which permits a visual determination of the direction of the offset. With respect to claim 15, U.S. Patent No. 5,291,359 to Wolter illustrates in Figure 1 an upwardly structured load support protrusion on tab 42, the contact point with the slider being substantially in the same plane as the raised gimbal beams 44. A disk head (slider) would be positioned on top of the flexure 32 as illustrated in Figure 9.

With respect to claim 20, Hagen states that the fact that the slider is substantially centered within the gimbal section distinguishes over the prior art. It is urged that:

This is because the prior art required positioning of the slider on the flexure at a location that was offset from the centerline of the flexure when mounting the slider to the flexure in order to offset the slider from the gimbal point of the flexure to provide the desired flying characteristics for the slider.

This position is unpersuasive because Hagen does not provide any evidence in support of its position.<sup>10</sup>

As to claim 21, Hagen states that:

Moreover, the fact that the slider has substantially the same length and width as the H-shaped opening as recited by the party Hagen's claim 21 is not disclosed or suggested by the subject matter defined by the interfering claims and the prior art.

Since the subject matter defined by the interfering claims and the prior art do not disclose an H-shaped opening, they do not disclose or suggest that the slider has substantially the same length and width as the H-shaped opening.

As noted above with our discussion of claims 1 and 18, Hagen has in effect admitted that a flexure section having an H-shaped opening and a flexure section having a U-shaped opening define the same patentable invention. Mere reference to the fact that the claim recites that the slider has substantially the same length and width as the H-shaped opening, a feature which is not disclosed in the prior art, does not per se establish separate patentability within the meaning of 37 CFR § 1.601(n). L'Esperance v. Nishimoto, 18 USPQ2d at 1538. Hagen has provided no objective evidence or argument to carry its burden of persuasion so as to overcome the rebuttable

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<sup>10</sup> Both Watrous patents and Wolter, previously cited, illustrate sliders within a gimbal section and substantially centered. In Figure 3 of Watrous '765, a slider 38 is within a gimbal section, with the slider substantially centered. In Figures 1 and 2 of Watrous '641, slider 38 is within a gimbal section 22, with the slider substantially centered. In Figure 9, Wolter shows a slider 84 within a gimbal section wherein the slider is substantially centered.

Interference No. 103,228

presumption of obviousness. A party filing a motion has the burden of proof to show that it is entitled to the relief sought. 37 CFR § 1.637(a).

The subject matter added by dependent claim 22 is not separately argued by Hagen.

Lastly, with respect to claim 29, Hagen argues that the feature of a load supporting protrusion is substantially between the mid-points of the gimbal beams is not disclosed or suggested by the prior art. The position is taken that this relationship reduces wear of the load supporting protrusion and the slider.

Again, mere reference to a claimed feature which is not disclosed in the prior art does not per se establish separate patentability within the meaning of 37 CFR § 1.601(n). The position that the claimed subject matter reduces wear of the load supporting protrusion and the slider is mere attorney argument which cannot take the place of evidence.<sup>11</sup>

#### Hatch's Case for Priority

#### Hatch's Conception

Hatch's record is to the following effect.

In February, 1992, the inventor Michael R. Hatch worked for Read-Rite Corporation on a contractual basis as a consulting engineer. Co-inventor, Dr. Chak M. Leung, worked for the company as a research and development engineer. The first drawing of the invention was made on March 9, 1992. The drawing is identified as Hatch Exhibit 121. On the bottom third of page 1 of the exhibit are shown two designs of read/write suspension arms. The upper embodiment is

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<sup>11</sup> Both Watrous patents and Wolter disclose a load supporting protrusion substantially between the mid-point of gimbal beams.

Interference No. 103,228

identified as "FEMTO" and the lower embodiment is identified as "FEMTO/CERAMIC SUSPENSION." On March 11, 1992, details of the drawing were discussed at a meeting with Read-Rite engineers. Jimmy Shen, a Senior Research and Development Engineer employed at Read-Rite, was one of those engineers. Shen recalled that the engineers discussed various aspects of the new "FEMTO" designs. With respect to the "FEMTO/CERAMIC SUSPENSION," Shen testified that there are two parts to the design, the slider itself and the suspension arm (Hatch Record, page 280, lines 12-15). Shen also testified that he had a present recollection of having seen the blow-up of the "FEMTO" designs comprising page 2 of Hatch Exhibit 121 at the March 11, 1992 meeting (Hatch Record, page 285, lines 4-14).

Hagen argues that Hatch's preliminary statement under 37 CFR § 1.621 does not assert a first disclosure to others until April 3, 1992 and that, accordingly, Hatch is clearly not entitled to the date of March 11, 1992 as its date of conception.

The junior party argues that the testimony of Shen relied upon by the party Hatch does not indicate where any of the elements of the count can be found in the party Hatch's Exhibit 121. It is urged that the "FEMTO" design of the exhibit (like the "50% (NANO)" design on the middle of the page and the "70 %" design at the top of the page) clearly does not meet the terms of the count because all of those designs include a separate flexure section which is welded or otherwise attached to the load beam section.

The argument is made that as for the "FEMTO/CERAMIC SUSPENSION," Shen testified that he did not know how it worked, suggesting that Exhibit 121 is an inoperative device.

We agree with Hagen that Hatch is limited to a conception date of April 3, 1992 even if his evidence shows that conception occurred prior to that date. Evidence which shows that an act alleged in the preliminary statement occurred prior to the date alleged in the statement shall establish only that the act occurred as early as the date alleged in the statement. 37 CFR § 1.629(b).

We agree for the reason given by Hagen that the "FEMTO," "50% (NANO)," and "70%" designs clearly do not meet the terms of the count, and Hatch does not appear to urge otherwise. Nevertheless, we are of the opinion that Hatch has established that it was in possession of the invention on March 11, 1992 and, accordingly, that Hatch is entitled to a date of conception of April 3, 1992. Hagen's attacks on Hatch Exhibit 121 and the testimony of the corroborating witness Shen as they relate to the "FEMTO/CERAMIC SUSPENSION" design are not persuasive. Hagen's allegation that that the testimony of Shen does not indicate where any of the elements of the count can be found in that design overlooks the fact that Shen, in referring to the drawing labeled "FEMTO/CERAMIC SUSPENSION," testified the design has two parts, one the slider itself, and the other one being the surrounding suspension (the single integral planar piece of count 1). Furthermore, in paragraph (3) bridging pages 32 and 33 of Hatch's record, while referring to Hatch Exhibit 121, Shen identified all the elements which the design included, and

his description clearly meets all the elements of the count. Hagen's brief does not refer to any testimony of Shen on cross-examination which relates to Exhibit 121 where Shen admits that the "FEMTO/CERAMIC SUSPENSION" design did not include one or more of the elements which he set forth in aforementioned paragraph 3; or that he could not recall whether the design actually included one or more of these elements.

Hagen's charge that the design in question was considered inoperative by Shen is unpersuasive because the witness never testified to that effect. At page 278 of the Hatch record, Shen testified that by looking at the size of the "FEMTO/CERAMIC SUSPENSION" drawing on page 1 of Exhibit 121, he did not know how it works. This is not to say that Shen did not know on March 11, 1992 or at the time of his testimony how the device operated. At lines 24 and 25 of the above page, counsel for Hagen acknowledged the testimony was ambiguous and beginning at line 25 asked Shen, "When you said 'I don't know,' do you mean that you cannot tell from looking at that design of that size how it works?" Shen responded "We have made some of this, but I really forgot the result." Again, Shen's response is ambiguous but appears to be saying the apparatus was made but that he doesn't recall test results. The testimony does not indicate directly or by inference that Shen considered the design inoperative.

Hatch does not contend that it actually reduced to practice the invention defined by count 1 or that it was reasonably diligent.

Hagen's Case for Priority

Hagen's Conception

Hatch concedes that Hagen was in possession of the subject matter of the count on February 17, 1992. Accordingly, Hagen can prevail in this proceeding as first to conceive and first to reduce to practice if it has established actual reduction to practice prior to the October 7, 1992 effective filing date of Hatch. In the alternative, Hagen can prevail as one who was first to conceive if it has established reasonable diligence from a time prior to the conception by Hatch to a reduction to practice, actual or constructive.

Hagen's Actual Reduction to Practice

Hagen contends that the following facts establish actual reduction to practice prior to Hatch's October 7, 1992 constructive reduction to practice.

On July 29, 1992, employees of Hagen's assignee, Seagate Technology, Inc. (Seagate), fly height tested twenty-nine head suspension assemblies. Results of the tests were reported to a Seagate engineer, Lyle G. Johnson, on that same date. Johnson immediately summarized the data from those tests and made graphs of the results. At page 349 of Hagen's record, Johnson testified that:

Fly height distribution data collected during the operation of the head suspension assembly clearly illustrated that the head suspension assembly performed its intended function under conditions simulating actual use conditions. That is, fly height tests of the kind to which the head suspension assembly was subjected are the tests Seagate uses in its normal course of business to test such parts, and the parts that I had tested passed those tests.



Interference No. 103,228

At page 350 of Hagen's record, Johnson also testified that:

The data was indicative of a successful design because the standard deviation of the distribution was below 0.25 micro inches.

In opposition, Hatch argues that the devices that were tested by Hagen did not meet every limitation of the count. It is urged that the devices did not include a transducer mounted on the slider and that no data was recorded and read out from the surface of a magnetic disk. Yet further, Hatch contends that Hagen has failed to present any data showing separation of "load transfer . . . from the gimbaling action of the slider so that pitch and roll stiffness is effectively reduced."

Hatch refers to Hatch Exhibits 104, 113 and 114 as procurement documents of leading disk drive and recording head manufacturers. The documents are asserted as setting forth mechanical requirements that a head suspension assembly would have to meet in order to work as intended in a disk drive. These documents disclose a start-stop test, a drop test and a bond peel strength test. Other tests include pitch static angle, roll static angle, crash-stop and stiction stress verification. Hatch contends that to demonstrate that the party Hagen's device would work for its intended purpose, it was necessary to perform these tests.

We are of the opinion that Hagen has not established an actual reduction to practice at any time prior to its filing date. A party seeking to establish an actual reduction to practice of a device must establish that the party constructed an embodiment that met every element of the count and that the embodiment operated for its intended purpose. Eaton v. Evans, 204 F.3d 1094, 1097, 53 USPQ2d 1696, 1698 (Fed. Cir. 2000). In the present case, the count explicitly calls for "at

Interference No. 103,228

least one transducer . . . for transducing data . . . " Here, it is undisputed that the head suspension assemblies tested did not use a transducer which the count expressly recites.

Furthermore, it is considered that Hagen has not established that the apparatus tested operated for its intended purpose. Eaton v. Evans, 204 F.3d at 1097, 53 USPQ at 1698. The count calls for transducing data that is recorded and read out from a surface of a rotating magnetic disc, and for effectively separating load transfer from the gimbaling action of the slider so that pitch and roll stiffness is effectively reduced. Here, there is no disagreement over the fact that data was not recorded and read out from a surface of a rotating magnetic disc to establish that the head suspension assembly would work effectively to transduce data, even in a crude way. Furthermore, the testimony of Lyle Johnson relied on by Hagen relates only to fly height performance, which has not been shown to establish that load transfer was effectively separated from the gimbaling action of the slider, so that pitch and roll stiffness was effectively reduced.

Although we agree with Hatch that Hagen has not established an actual reduction to practice as alleged, we do not agree with Hatch that it was necessary for Hagen to satisfy the mechanical test requirements of Hatch Exhibits 104, 113 and 114. As procurement documents, the tests set out therein relate to commercial requirements. Successful commercial use is not necessary in order to have an actual reduction to practice. Kirshcke v. Lamar, 300 F. Supp. 146, 154, 163 USPQ 99, 105 (W.D. Mo. 1969); aff'd, 426 F.2d 870, 65 USPQ 679 (8th Cir. 1970).

Hagen's Diligence

Hagen contends that the following facts establish reasonable diligence in the period from just prior to Hatch's entry into the field on April 3, 1992 to Hagen's filing date on November 12, 1992. Hagen relies on engineering diligence from February 17, 1992 to July 29, 1992 and attorney diligence from March 31, 1992 to November 12, 1992.

With respect to attorney diligence, the Hagen record indicates that on March 5, 1992, Don Redenius, vice-president of engineering at Seagate, gave approval for a patent application relating to Hagen's head suspension. Shortly thereafter, a disclosure form was sent by the inventor Tracy Hagen to Edward Heller III, chief intellectual property counsel for Seagate, by interoffice mail. Heller received the Hagen invention disclosure form on March 31, 1992. Three or four days subsequent to that, Heller assigned the task of preparing a patent application to Thomas Prentice, a Seagate employee.

Prentice first learned of the Hagen invention disclosure on April 8, 1992, the date when he received a copy of the disclosure form and a cover letter from Heller assigning him to the application. About this time, a number of patent cases were reassigned to Prentice and outside counsel from the docket of a California attorney who left Seagate's employ. Prentice estimated that at any given time he had half a dozen cases on his docket and that it normally took him 30-35 hours to prepare an application draft. Prentice testified that he took Hagen's invention disclosure up for action in the regular chronological order in which it and other invention disclosures had been assigned to him. On about April 15, 1992, Prentice telephoned the inventor

Tracy Hagen to clarify a few points about the invention disclosure and asked Hagen to prepare another write-up of the invention, this one including a background of the invention, a history of prior art solutions and a list of improvements over the prior art. Hagen complied and spent 30 to 40 hours preparing a 32-page description of the invention (Hagen Exhibit 31). Prentice received this document on May 27, 1992. Prentice visited Tracy Hagen in June, 1992 concerning the drafting of Hagen's application and did some modification work to material he had prepared to separate out an invention made by Seagate employee, Lyle Johnson. Prentice completed a draft of Hagen's involved application and Tracy Hagen received a copy of the draft on October 16, 1992. That same day Hagen faxed a copy of a memorandum commenting on the draft to Prentice. Prentice estimated that it took him a total of 60 hours of work to complete the Hagen application.

A party that seeks to establish reasonable diligence must account for the entire period during which diligence is required; that period commences from a time just prior to the senior party's date to the junior party's reduction to practice, either actual or constructive. Gould v. Schawlow, 363 F.2d 908, 150 USPQ 634 (CCPA 1966). Public policy favors early disclosure. Naber v. Cricchi, 567 F.2d 382, 385, n.5, 196 USPQ 294, 297, n.5 (CCPA 1977), cert. denied, 439 U.S. 826, 200 USPQ 64 (1978). During this period there must be "reasonably continuous activity." Burns v. Curtis, 172 F.2d 588, 591, 80 USPQ 587, 588-589 (CCPA 1949). Evidence which is of a general nature to the effect that work was continuous and which has little specificity

Interference No. 103,228

as to dates and facts does not constitute the kind of evidence required to establish diligence in the critical period. Kendall v. Searles, 173 F.2d 986, 81 USPQ 363 (CCPA 1949).

Hatch does not challenge the sufficiency of Hagen's showing as to reasonable engineering diligence toward actually reducing the invention to practice from just prior to Hatch's entry into the field on April 3, 1992 until July 29, 1992. Based on the record submitted by Hagen, we are of the opinion that Hagen has established reasonable diligence toward an actual reduction to practice in this time period.

However, it is considered that Hagen has not established reasonable diligence in the remainder of the critical period, that is, from July 29, 1992 to November 12, 1992. The junior party's evidence is deficient with respect to this period in that it has little specificity as to dates and facts from which the Board can conclude that activity was reasonably diligent. All we know is that a first draft of Hagen's application was completed on or about October 16, 1992, that the draft was reviewed by Tracy Hagen that same day, that the application was executed by Tracy Hagen on November 11, 1992 and that the application was filed on November 12, 1992. Thomas Prentice kept no records establishing day-to-day activities with respect to his case work.

Even assuming certain facts in the best possible light for Hagen, the junior party has not established why the Hagen application was not filed until November 12, 1992. Let us assume that Prentice had a half dozen docketed cases on April 8, 1992, the date he was assigned Hagen's application, and that he had done no work on these cases. Assuming each case took him an average of 40 hours to prepare a patent application, it would have taken Prentice until

May 20, 1992 (6 weeks from April 8, 1992) to prepare applications of his six docketed cases.<sup>12</sup>

Assuming that preparation of the Hagen application took 60 hours of work to complete as estimated by Prentice, this would have required until about June 1, 1992, almost 8 weeks from April 8, 1992. Assuming, without finding, that Seagate was justified in assigning non-patent tasks to Prentice on a regular basis, which tasks the record indicates took up 50% of his time, completion of a draft of Hagen's application would have taken to July 27, 1992 (another 8 weeks). Even with the above favorable assumptions for Hagen, there remains a period of inactivity of over 2 1/2 months to October 16, 1992 which is unaccounted for, and a further period of inactivity of over three weeks from October 17, 1992 to November 11, 1992 which is unaccounted for.<sup>13</sup>

Prentice testified in his declaration that he took up cases in regular chronological order. He testified on cross-examination to the effect that he and outside counsel were assigned several cases for preparation that were transferred from the California attorney who left Seagate's employ about the time he was assigned preparation of the Hagen case (Hatch Record, page 544, lines 3-18). In contrast to his declaration testimony noted above, Prentice's testimony on cross-examination indicates that he could not recall how the work was prioritized (Hatch Record,

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<sup>12</sup> Prentice testified that it took him 30-35 hours to prepare an application draft.

<sup>13</sup> There is no evidence that Prentice actually prepared any amendments for pending applications in the Patent and Trademark Office in the period with which we are concerned. Nor is there any specific evidence establishing that Prentice prepared any applications in this time period from cases of the California attorney who left Seagate's employ sometime in 1992. In the latter case, even if Prentice had worked on such cases, it would have been necessary for the junior party to establish that Prentice was justified in taking up the cases before preparing Hagen's case, if such were the circumstances.

Interference No. 103,228

page 544, line 19 to page 545, line 3). Thus, it is not established that Prentice took up the Hagen case in regular chronological order. Rines v. Morgan, 250 F.2d 365, 369, 116 USPQ 145, 148 (CCPA 1957).

Hagen Issue No. 10

Hagen submits that the party Hatch did not timely file a notice under 37 CFR § 1.660(b) concerning three divisional reissue applications within 10 days of the day on which the applications for reissue were filed. Hagen suggests that an appropriate sanction be applied against Hatch.

We will not apply a sanction against Hatch based on Hatch's belated notice. The above rule provides that a patentee shall notify the Board that an application for reissue has been filed within 10 days of the day the application for reissue is filed. In this case, notice was only slightly belated as it was given by Hatch 26 days after it had filed its three divisional reissue applications. No harm occurred as a consequence of Hatch's late filing of notice and, consequently, no sanction is deemed appropriate.

Under Issue No. 10, Hagen also urges that its motion titled THE PARTY HAGEN'S 37 CFR 1.635/1.645(b) MOTION NO. 10 ASKING THE APJ TO CONSIDER TWO BELATEDLY FILED DOCUMENTS (Paper No. 100) should be granted. This motion seeks to enter as evidence two documents in support of Hagen's opposition (Paper No. 98) to Hatch's motion titled PARTY HATCH'S MOTION UNDER 37 CFR § 1.633(a) (Paper No. 94). Hatch's motion is for judgment on the ground that Hagen concealed its best mode of carrying out the

Interference No. 103,228

invention under 35 U.S.C. § 112, first paragraph. Hatch's motion is dismissed below as moot.

Accordingly, Hagen's Motion No. 10 (Paper No. 100) is also dismissed as moot.

Hagen Issue No. 13

Hagen contends that its Motion No. 13 under 37 CFR § 1.635/1.616(b) for sanctions (Paper No. 139) should be granted.

Hagen asserts that the co-inventor, Michael Hatch, conceded on cross-examination that his second declaration filed in support of its motion for judgment under 37 CFR § 1.633(a) on the ground that Hagen concealed its best mode of carrying out the invention contained gross miscalculations, and that use of the equations incorporated by reference into the Hagen application in interference results in distances and angles that are actually quite close to the party Hagen's allegedly undisclosed best mode. It is urged that Hatch's failure to withdraw its belated 37 CFR § 1.633(a) best mode motion (Paper No. 94) became sanctionable under 37 CFR § 1.616(b). Accordingly, Hagen contends that the assignee of Hatch should be required to pay the assignee of Hagen its attorney fees and expenses attributable to filing and serving the Hagen and Johnson rebuttal declarations, arranging to produce them for cross-examination, briefing the best mode issue for final hearing, and arguing best mode at oral hearing.

The motion is denied. At best, Hagen contends to the effect that the gross miscalculations in the inventor's second declaration are clearly insufficient to sustain the charge made by Hatch against Hagen of Hagen's concealment of its best mode. Even assuming this to be the case, Hagen has not shown that all of the arguments made by Hatch in support of its



charge that Hagen did not disclose its best mode are frivolous. For example, Hagen opposes Hatch's charge that Hagen should have disclosed the results of certain resonance experiments conducted by the witness, Johnson, in the involved Hagen application. Accordingly, Hagen would have had to oppose Hatch's motion and incur the expense thereof even if the charge of concealment of best mode based on the miscalculations had been withdrawn by Hatch.

Other Issues

In view of our findings above that Hatch was the first to invent, Hatch's charges that Hagen failed to disclose its best mode under 35 U.S.C. § 112, first paragraph, and that Hagen should be sanctioned because of its attempt to usurp the authority of the APJ and the Board (Hatch issues 1 and 3, respectively, at page 1 of the Hatch brief) are dismissed as moot. Whereas Hatch issue 1 is dismissed as moot, motions relating thereto titled THE PARTY HAGEN'S 37 CFR 1.635 MOTION NO. 11 TO STRIKE OR SUPPRESS THE SECOND DECLARATION OF MICHAEL R. HATCH (Hagen Issue 11) and THE PARTY HAGEN'S 37 CFR 1.635 MOTION NO. 12 TO QUASH THE PARTY HATCH ET AL.'S 37 CFR 1.637(e) [sic:1.671(e)] NOTICE SERVED APRIL 24, 1997 OR, IN THE ALTERNATIVE, TO SET A SEPARATE SCHEDULE FOR HANDLING MR. HATCH'S SECOND DECLARATION (Hagen Issue No. 12) are dismissed as moot.

Summary

In view of our finding that the party Hatch is the first to invent and our decisions with respect to other matters raised by the parties, the party Hatch is entitled to prevail herein.

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34

Interference No. 103,228

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